ARMY ENGINEERS IN POST-WAR RECONSTRUCTION:

THE PHILIPPINES, JAPAN, AND GERMANY, 1945-1947

by

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In the first two years after the end of fighting in the Philippines, Japan, and Germany, Engineers had a large construction mission to provide facilities for Army forces and to assist in the reconstruction of the civilian economies. In all three theaters they confronted the enormous devastation of war with limited numbers of troops and shortages of supplies. The scope of the mission was probably greatest in the Philippines, which had been an American commonwealth before the war and thus received more assistance than the defeated enemies. In addition the Philippines was to be one of the main staging areas for the invasion of Japan. Thus the Engineer mission in the Philippines was more extensive and Engineer organization more complex than in Japan or Germany. All three cases illustrate, however, the huge variety of demands that a post-war period can place on Engineer resources.

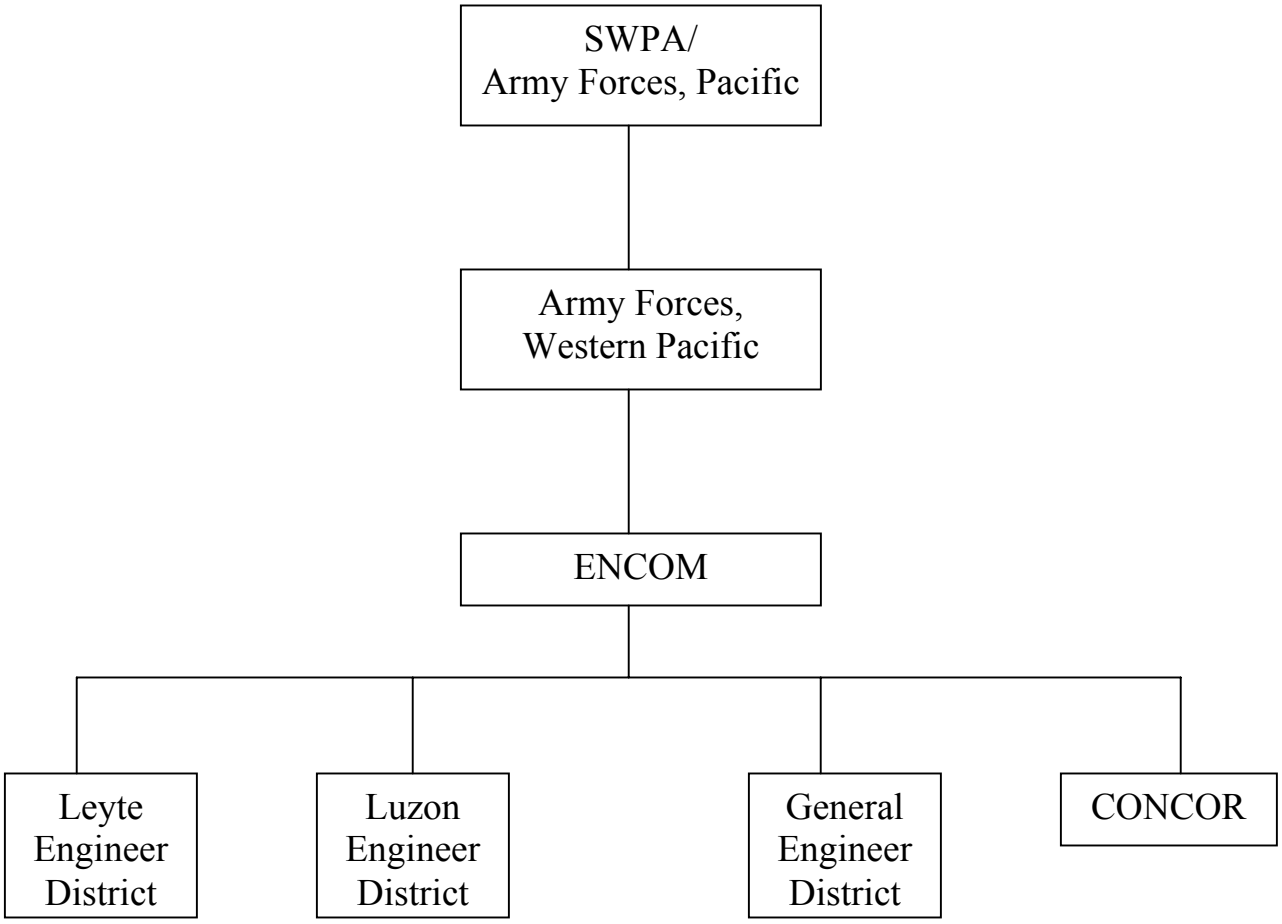
During the early months of World War II the Joint Chiefs of Staff divided the Pacific into two theaters of operations: the Pacific Ocean Areas under Admiral Chester Nimitz and the Southwest Pacific Area (SWPA) under General Douglas MacArthur.[1] MacArthur's forces spent almost two years blocking the Japanese offensive toward the south and retaking the strategically important island of New Guinea. In the fall of 1944 MacArthur redeemed his well-known pledge to return to the Philippines when he landed on Leyte. On 9 January 1945 the American Sixth Army landed in northern Luzon and moved south toward the Philippine capital, Manila, in what would be the largest land campaign in the Pacific. MacArthur's troops reached Manila in early February, but Japanese forces clung tenaciously to the city. It took American soldiers a month of bitter fighting to liberate the city, which suffered extensive damage during the campaign.

Responsibility for reconstruction in Manila fell to SWPA's communications zone command, the Services of Supply, which was redesignated Army Forces, Western Pacific (AFWESPAC) in June 1945 (see Figure 1). AFWESPAC was also responsible for supporting continuing combat operations on Luzon and for building bases for what was expected to be the biggest campaign of the Pacific war--the invasion of Japan. By July 1945 AFWESPAC had almost half of the 190,000 Engineer troops in SWPA under its command. Almost one fourth of AFWESPAC forces were Engineers.

Engineer planners in MacArthur's headquarters anticipated an enormous amount of construction and rehabilitation on Luzon and recommended the formation of an Engineer

Figure 1

Engineer Organization in the Philippines
March 1945



Construction Command (ENCOM), which would be responsible for all construction in AFWESPAC. The Engineers argued that this organization, which had never been used in SWPA previously, would ensure that SWPA headquarters construction priorities were observed and would perform the mission more efficiently and effectively. On 9 March 1945 ENCOM was established. It reported directly to HQ AFWESPAC. In addition to its construction work, which was concentrated primarily in the Philippines, ENCOM was responsible for maintaining specified air bases and for rehabilitating and maintaining important Philippine utilities and industries.

ENCOM's first two subordinate commands were the Leyte and Luzon Engineer districts, which were already in existence. The Luzon district (LUZED), which began operations in mid-February, was responsible for base construction and the repair and maintenance of specified airfields behind the advancing Sixth Army. By July LUZED had some 20,000 Engineer troops and a similar number of civilian laborers working on projects throughout the island. The Leyte district completed the remaining projects on that island and was deactivated in May.

At the end of 1944 Engineers in GHQ SWPA developed plans to form a third district similar to Engineer districts in the U.S. and put it in charge of civil reconstruction work on Luzon. This district, called the General Engineer District (GENED), would use Filipino contractors and laborers, thereby freeing Engineer troops for military construction. SWPA asked the Chief of Engineers to form a district and staff it with the specialists normally found in stateside districts. The Chief agreed, but would not send civilians to the theater. Instead OCE picked 150 officers and 300 enlisted men, trained them at Ft. Belvoir during January, and shipped them to the Philippines in February and March.

Soon after its formation on March 25, GENED discovered that Filipino contractors were not prepared or equipped to take a large role in the reconstruction. As a result the district had to rely on direct hire or contract Filipino laborers and American Engineer troops. Gradually GENED's mission expanded to include military construction, and LUZED was deactivated in mid-July. By late August GENED had some 37,000 civilians and some 44,000 troops at work and had established five area offices. The high turnover in the civilian labor force led ENCOM to form in late April the Construction Corps of the Philippines (CONCOR) composed of semi-military labor battalions of Filipinos who enlisted for six months under the command of American and Filipino military personnel in exchange for room, board, and post exchange privileges. At its peak CONCOR had a strength of 14,000.

The task of reconstruction confronting the Engineers in the Philippines was an enormous one. The Japanese had systematically destroyed the port facilities and left 600 sunken vessels in the harbor. Using floating ponton piers as an interim measure, Engineers repaired the damaged wharfs and piers and constructed some new ones. Army dredges excavated 3.25 million cubic yards of material from the harbor and the Pasig River, which bisected the city. Within 16 days after work on the harbor began, the first Liberty ships docked.

Manila's public utilities were in ruins. Engineers restored some water supply to the northern part of the city shortly after combat forces pushed the Japanese away from the city's reservoirs, but they had to install a 16-inch water main across the Pasig River and repair pumping stations before service to the devastated southern part of the city could resume. Restoration and maintenance of the water supply and sewerage systems required a major Engineer effort until the systems were turned over to municipal authorities in early November. The city's electrical power system also required reconstruction, including the rehabilitation of a hydropower plant, several substations, and almost all the transmission lines.

In addition to reconstructing public utilities, the Engineers and civilian laborers cleared and repaired a hundred miles of city streets and 400 miles of provincial roads, built temporary bridges over the Pasig River, and repaired numerous public buildings. To support the massive reconstruction effort, Engineers rehabilitated two private cement plants and restored basic service on the railroads.

While rehabilitation work required a huge effort, Engineers had to support continuing operations on Luzon and the planned invasion of Japan. They repaired or constructed 20 airfields on Luzon and 25 in the rest of the islands, built extensive new gasoline storage facilities and 500 miles of pipeline, and constructed 9 million square feet of covered and 34 million square feet of open storage, a staging area for 350,000 soldiers, and extensive hospital facilities.

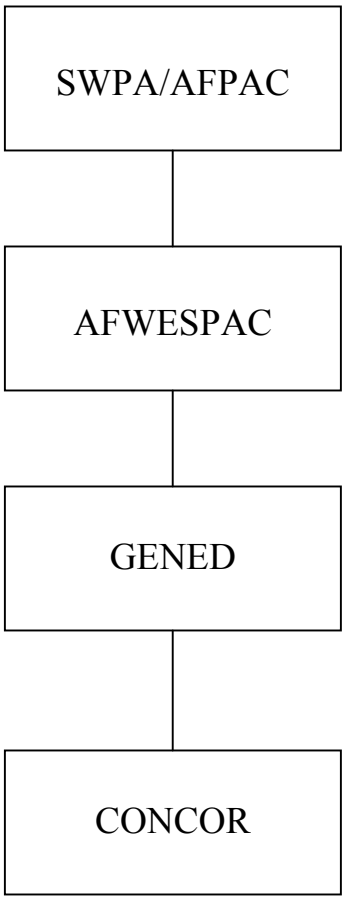
It appears that the civilian government of the Philippines played only a minor role in the reconstruction at least in the early months. Prior to the war the islands were a commonwealth associated with the United States, and in February 1945 MacArthur reestablished, at least symbolically, the commonwealth government. The pre-war Congress reconvened in June and quickly became enmeshed in recriminations about collaboration and new presidential elections. Evidently the damage was too great and the resources of the civilian government too small to deal effectively with reconstruction. In July 1946 the U.S. granted independence to the Philippines.

In August 1945 the military situation in the Pacific changed dramatically when Japan surrendered. American and Allied forces occupied the islands, and in short order the rapid post-war demobilization began. When ENCOM left the Philippines for Japan on September 1, GENED became responsible for most construction in the Philippines (see Figure 2). By the end of the month it took over CONCOR, which continued to operate until late 1946.

The construction program did not decline immediately after the surrender of Japan because of the requirements for facilities and continuing demands of civilian reconstruction. The numbers of Engineer troops did decline rapidly, however, limiting AFWESPAC's ability to execute the post-war construction program both in the occupied areas (Japan and Korea) and the rest of the theater. In November the theater asked the Chief of Engineers to establish Engineer Districts to accomplish construction outside the occupied areas. In February 1946 the Chief

Figure 2

Engineer Organization in the Philippines
October 1945



Established the Western Ocean Division (WOD) with three districts: Manila, Okinawa, and Honolulu. In January 1947 a fourth district was established on Guam. On l July 1946 WOD assumed responsibility for new construction. Most of the personnel for the Manila district came from GENED, but additional people were also recruited in the United States. WOD continued to do work in the western Pacific until 1950.

In September 1945 American forces occupied Japan with the Sixth and Eighth Armies sharing occupation duties.[2] By the end of the year Sixth Army was inactivated, and Eighth Army remained as the occupying force with MacArthur as supreme commander of Allied forces and head of the military government. American Engineers in Japan devoted a great deal of effort to providing operational and support facilities for American troops, but not as much effort as they had in the Philippines to the reconstruction of civilian facilities, although damage in Japan was also enormous.

The transition from wartime to peacetime standards and procedures created major problems. According to a contemporary Engineer account, "Funds replaced shipping space as a controlling feature of construction activities, and as troop strength declined, execution of construction became dependent upon the use of native labor supervised by troops, and finally upon the use of civilian contractors."[3]

Although damage to the civilian economy was great, Engineers discovered that many existing facilities were useable with minor repairs, and much less construction than expected was needed for ports, warehouses, and fuel storage. The largest immediate programs involved airfields and troop housing. Japanese airfields were poorly constructed and could not stand up to the heavy American usage. While many Japanese barracks were available, they were not adequately heated. Boilers and radiators had been removed to provide scrap for the Japanese war effort, and Engineers struggled during the first winter to provide adequate heating.

During the first six months of the occupation, construction authority was very decentralized with very little review of projects, except for airfields, by the theater Engineer of the occupational command, Army Forces Pacific (AFPAC). In February 1946, however, AFPAC asserted more control, requiring the AFPAC theater Engineer's approval of all projects of a semi-permanent nature. Execution of construction remained the responsibility of Eighth Army.

The new approval requirements went into effect just as Engineers began planning for the biggest construction and rehabilitation program of the occupation--providing dependent housing. The War Department authorized dependents in the theater on 1 May 1946, but prohibited the use of War Department funds to construct housing and prohibited the use of materials from CONUS in housing construction. Thus the Japanese government had to bear the cost of dependent housing as it was bearing the rest of the costs of occupation. Requests for construction projects went to the military government which passed them on to Japanese authorities who contracted them out to private companies. Engineers found, especially in the early period of the occupation, that they had to supervise the Japanese companies closely to obtain the quality they desired.

When the occupation forces reached a relatively stable strength by mid-1947, the requirements of the construction program declined, and repairs and utilities became the major preoccupation of the small occupation Engineer force.

Because the end of war against Germany came more than three months before the end of the war against Japan, Engineers in Europe confronted different problems than those in the Pacific in the first few months after hostilities ended. In Germany redeployment of units and their equipment to the Pacific was the first priority. Engineer units built huge temporary camps near ports of embarkation and scoured the continent for lumber to build facilities and pack equipment for shipping. Within four months after V-E day, three quarters of the Engineer troops had left the theater as a result of redeployment and then demobilization.

Rehabilitating ports and facilities to support the occupation force was another high priority. The Allied agreements, which divided Germany into four zones of occupation, allocated the ports of Bremen and Bremerhaven to the Americans, whose zone lay in the south. Clearing mines and wreckage from the harbors and waterways, Engineers reopened the ports in less than two months. Providing airfields and related facilities to American standards at Rhine-Main and Tempelhof was also a major task. The Army requisitioned or confiscated command and operational facilities and troop housing, but most of these required substantial rehabilitation. In the spring of 1946 when the War Department allowed dependents in the theater, the Engineers began a large construction and rehabilitation program to provide dependent housing and to improve facilities for troops, who it now appeared would be in Germany for some time. Engineers were also responsible for providing depots in Germany for 4.5 million tons of supplies gathered from depots throughout Western Europe. This effort took three years and resulted in a major Engineer depot in Hanau.

The destruction in Germany was also great, and in addition millions of displaced persons and former prisoners of war had to be cared for. The first reconstruction priorities were reopening the German coal mines and restoring a basic transportation network. Engineers operated 177 coal mines for several months, rehabilitated the railroads, cleared wreckage from a portion of the Rhine and other rivers, provided replacements for hundreds of damaged or destroyed bridges, and rehabilitated electrical generating plants and distribution systems. While Engineers did become involved in other reconstruction projects, such as restoring water supply, that involvement was less extensive than it had been in the Philippines.

To perform the many tasks assigned to them, Engineers at first relied on Engineer troop units, but the number of available troops declined rapidly. Then they used enemy prisoners of war (POWs) and hired civilians. During the first quarter of 1946, Engineers employed 60,000 POWs and 25,000 civilians. Gradually the number of POWs declined and the use of civilians increased. The shortage of supplies and the enormous dislocation in the German economy prevented the use of contractors until later in the occupation.

During the first two years of the occupation, the construction program proceeded with little overall direction from the theater level. The theater underwent a number of organizational changes prior to 1947, and the theater Chief Engineer provided as much coordination as he could in a rapidly changing situation. By early 1947 the theater commander became concerned with lessening the burden of the occupation and with bringing the somewhat chaotic and burgeoning construction program under control. In February 1947 the theater required local commanders to submit all major construction projects to the theater Engineer for his review and approval. With the stabilization of the number of troops and dependents in the theater and controls on the construction program, Engineers became more concerned with maintenance and repair until 1950 when the Korean War and increased international tensions brought major changes in both Japan and Germany.

The massive post-war reconstruction effort associated with the Marshall Plan in Europe began after the period covered in this essay. The immediate post-war construction under Engineer auspices was geared toward providing facilities for the Army and restoring enough of the infrastructure to support military activities and fulfill basic civilian needs. More reconstruction was done in the Philippines, which were liberated rather than occupied. The civilian economies of Japan and Germany were still reeling from the impact of the war until the opening salvos of the Cold War convinced American leaders that the occupied former enemies had to be transformed into allies in the new world conflict.

NOTES

1. For a good general discussion of command arrangements in the Pacific, see D. Clayton James, *The Years of MacArthur* (Boston: Houghton Mifflin Co., 1975), II: 721-30 and passim. The best discussion of Engineers in SWPA is contained in the seven volumes of Office of the Chief Engineer, General Headquarters, Army Forces, Pacific, *Engineers of the Southwest Pacific*. See especially, volume II, *Organization. Troops, and Training*, pp. 187-98. See also "History of AFWESPAC Engineer Effort," pp. 3-9 and 239-91 in Military Files, XII-5-3, and "Administrative History, Office of the Chief Engineer, General Headquarters, Army Forces, Pacific, 6 April 1945-31 December 1946" in Military Files, XII-5-Bd 1, both in Research Collections, Office of History, HQUSACE, Alexandria, VA. For the best overview of Engineer operations in the Pacific, see Karl C. Dod, *The Corps of Engineers: The War Against Japan*, *United States Army in World War II* (Washington, DC: Center of Military History, 1966).
2. For an overview see Karl C. Dod, "Overseas Military Operations of the Corps of Engineers," Chapter IV, "The Far East: Japan and Korea, 1945-1950" in Military Files, XI-1-1, Research Collections, CEHO. For more detailed information see "Administrative History, Office of the Chief Engineer, General Headquarters, Army Forces Pacific."
3. "Administrative History, Office of the Chief Engineer, General Headquarters, Army Forces Pacific," p. 91. This account was apparently written in 1948.
4. The best coverage of the Engineer role in the occupation of Germany is the draft Europe Division history: Robert P. Grathwol and Donita M. Moorhus, "U.S. Army Engineers in Europe, 1945-1986: The History of the Europe Division and its Predecessor Agencies," chapters I and II. See also Headquarters, European Command, Office of the Chief Engineer, "Report of Operations of the Chief Engineer, 1 January-31 March 1947," EUCOM, Historical Div., Program Files, RG338, National Archives, Washington, DC.